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PATENT

10973 U.S. PTO  
09/19/21



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application : Theodore Bially et al.  
 Application No. : Unknown  
 Filed : Herewith  
 For : INTERFERENCE SUPPRESSION IN A SPREAD SPECTRUM  
 COMMUNICATIONS SYSTEM USING NON-LINEAR FREQUENCY  
 DOMAIN EXCISION  
 Attorney's Docket : TITAN-001XX

Group Art Unit:

\*\*\*\*\*  
 I hereby certify that this correspondence is being deposited with the  
 United States Postal Service as first class mail in an envelope  
 addressed to: Box Patent Application, Commissioner for Patents,  
 Washington, D.C. 20231 on \_\_\_\_\_.

By: \_\_\_\_\_  
 James F. Thompson  
 Registration No. 36,699  
 Attorney for Applicant(s)

\*\*\*\*\*

INFORMATION DISCLOSURE STATEMENT

Box Patent Application  
 Commissioner for Patents  
 Washington, D.C. 20231

Sir:

It is desired to cite for the record in this application the  
 enclosed references listed on the attached copy of PTO Form #1449. The  
 paragraph(s) marked below are applicable to this Information Disclosure  
 Statement.

- [X] (1) Pursuant to 37 C.F.R. § 1.97(b)(1) and (2), the attached  
 Information Disclosure Statement is being filed within three  
 months of the filing date of the above identified national  
 application or within three months of the date of entry of the  
 national stage as set forth in 37 C.F.R. § 1.491 of the above  
 identified application. Accordingly, applicant(s) believes that  
 no fee or statement under 37 C.F.R. § 1.97(e) is required.

Express Mail Number  
EL751777901US

- ☒ (2) Pursuant to 37 C.F.R. § 1.97(b)(3), applicant(s) believes the attached Information Disclosure Statement is being filed before the mailing date of a first Office action on the merits. Accordingly, applicant(s) believes that no fee or statement under 37 C.F.R. § 1.97(e) is required.
- ☐ (3) Pursuant to 37 C.F.R. § 1.97(b)(4), applicant(s) believes the attached Information Disclosure Statement is being filed before the mailing date of a first Office action after the filing of a request for continued examination under § 1.114. Accordingly, applicant(s) believes that no fee or statement under 37 C.F.R. § 1.97(e) is required.
- ☐ (4) Pursuant to 37 C.F.R. § 1.97(c), the attached Information Disclosure Statement is being filed before the mailing date of a final action or a notice of allowance and is accompanied by:
- ☐ a statement under 37 CFR § 1.97(e); or
- ☐ the fee set forth in § 1.17(p).

PETITION UNDER 37 CFR § 1.97(d)

- ☐ (5) Pursuant to 37 CFR § 1.97(d), applicant(s) hereby petitions the Commissioner to consider the attached Information Disclosure Statement which is being filed on or before payment of the issue fee. This petition is accompanied by a statement under 37 C.F.R. § 1.97(e) and the petition fee set forth in 37 C.F.R. § 1.17(i).

STATEMENT UNDER 37 C.F.R. § 1.97(e) (1)

- ☐ (6) The undersigned hereby states that each item of information contained in the attached Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.

STATEMENT UNDER 37 C.F.R. § 1.97(e) (2)

- ☐ (7) The undersigned hereby states that no item of information contained in the attached Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in the attached Information Disclosure

Application No. Unknown  
Filed: Herewith  
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Statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

The filing of this Information Disclosure Statement is not a representation by the undersigned as to personal knowledge of the contents of every word or phrase of the material enclosed or that reliance on other suitably trained professionals has not been made.

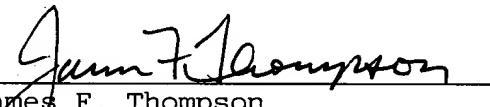
If a search report of a searching agency is enclosed identifying the nature of the relevance of each document, such a designation is deemed to satisfy 37 C.F.R. § 1.98(a)(3) even if in a foreign language because the codes are the same in all languages. However, applicant(s) does not necessarily adopt the position reflected by that report.

The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 23-0804. Triplicate copies of this letter are enclosed.

Respectfully submitted,

THEODORE BIALLY ET AL.

By:

  
James F. Thompson  
Registration No. 36,699  
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JFT/knr  
Enclosure  
254033-1

Date: July 30, 2001

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<b>Form PTO-1449</b> <b>(REV. 07/01)</b> <b>U.S. DEPARTMENT OF COMMERCE</b> <b>PATENT AND TRADEMARK OFFICE</b>  <b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>	<b>ATTY. DOCKET NO.</b>  TITAN-001XX	<b>APPLICATION NO.</b>  <div style="text-align: right;"> Jc973 U.S. PTO  09/919121    07/30/01 </div>
	<b>APPLICANT:</b> Theodore Bially et al.	
	<b>FILING DATE</b> Herewith	<b>GROUP</b>

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
	3,932,818	01/13/1976	Masak	328	167	
	4,287,475	09/01/1981	Eaton et al.	328	167	
	4,613,978	09/23/1986	Kurth et al.	375	99	
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	5,717,717	02/10/1998	Yang et al.	375	232	
	5,844,936	12/01/1998	Lesthievent	375	206	
	5,974,101	10/26/1999	Nago	375	350	

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
WO 00/04657	01/27/2000	WIPO	H04B	15/00	

## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

✓	Victor T. Tom et al., "Morphology-based Target Detection and Discrimination", Gaciac - Tactical Weapon Guidance & Control Information Analysis Center, Vol.1: Unclassified Papers, PP. 291-299 (1990)
✓	Tamar Peli et al., "Morphology-based algorithms for target detection/segmentation in FLIR imagery", SPIE-The International Society for Optical Engineering, Vol. 1957, PP. 85-94 (1993)
✓	Victor T. Tom et al., "Morphology-based algorithm for Point Target Detection in Infared Backgrounds", SPIE-The International Society for Optical Engineering, Vol. 1954, PP. 2-11 (1993)
✓	John w. Ketchum et al., "Adaptive Algorithms for Estimating and Suppressing Narrow-Band Interference in PN Spread-Spectrum Systems", IEEE Transactions on Communications, Vol. Com-30 No. 5, PP. 913-924 (1982)
✓	Sorin Davidovici et al., "Narrow-Band Interference Rejection Using Real-Time Fourier Transforms", IEEE Transactions on Communications, Vol. 37 No. 7, PP.713-722 (1989)

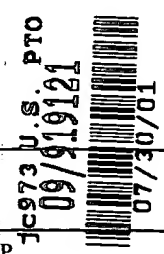
EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Date: July 30, 2001

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<b>Form PTO-1449</b> <b>(REV. 07/01)</b>  <b>U.S. DEPARTMENT OF COMMERCE</b> <b>PATENT AND TRADEMARK OFFICE</b>  <b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>				<b>ATTY. DOCKET NO.</b>  TITAN-001XX		<b>APPLICATION NO.</b>  <div style="text-align: center;">  </div>	
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<b>U.S. PATENT DOCUMENTS</b>							
<b>EXAMINER INITIAL</b>		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>NAME</b>	<b>CLASS</b>	<b>SUBCLASS</b>	<b>FILING DATE IF APPROPRIATE*</b>
		5,671,247	09/23/1997	Souissi et al.	375	200	
		5,029,184	07/02/1991	Andren et al.	375	1	
<b>FOREIGN PATENT DOCUMENTS</b>							
		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>COUNTRY</b>	<b>CLASS</b>	<b>SUBCLASS</b>	<b>TRANSLATION</b> YES NO
<b>OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)</b>							
✓		Stuart D. Sandberg et al., "Some Alternatives in Transform-Domain Suppression of Narrow-Band Interference for Signal Detection and Demodulation", IEEE Transactions on Communication, Vol. 43 No. 12, PP. 3025-3036 (1995)					
✓		Ronald a. Iltis et al., "Performance Analysis of Narrow-Band Interference Rejection Techniques in DS Spread-Spectrum Systems", IEEE Transactions on Communications, Vol. Com-32 No. 11, PP. 1169-1177 (1984)					
✓		Laurence B. Milstein et al., "An Analysis of a Real-Time Transform Domain Filtering Digital communication System-Part I: Narrow-Band Interference Rejection", IEEE Transactions on Communications, Vol. Com-28 No. 6, PP. 816-824 (1980)					
✓		Loh-Ming Li et al., "Rejection of Narrow-Band Interference in PN Spread-Spectrum Systems Using Transversal Filters", IEEE Transactions on Communications, Vol. Com-30 No. 5, PP. 925-928 (1982)					
✓		Takeharu Kohri, "An Interference Suppressor for CW and Narrow-Band Signals Using Filter Bank on CDMA Communications", IEEE Transactions on Communications, PP. 521-525 (1994)					
✓		Stuart D. Sandberg, "Adapted Demodulation for Spread-Spectrum Receivers which Employ Transform-Domain Interference Excision", Vol. 43 No. 9, PP. 2502-2510 (1995)					
✓		John Gevargiz et al., "Adaptive Narrow-Band Interference Rejection in a DS Spread-Spectrum Intercept Receiver Using Transform Domain Signal Processing Techniques", IEEE Transactions on Communications, Vol.37 No. 12, PP. 1359-1366 (1989)					
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